DOCUMENT RESUME

ED 232 640 IR 020 028

TITLE	Volcanoes. MicroSIFT Courseware Evaluation.
INSTITUTION	Northwest Regional Educational Lab., Portland, Oreg.
PUB DATE	Jun 82
NOTE	2p.; In its: MicroSIFT Courseware Evaluations (1-87), 1982. See ED 226 765.
PUB TYPE	Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Computer Assisted Instruction; *Computer Programs; Earth Science; Educational Games; *Geology; Microcomputers; Postsecondary Education; *Science Instruction; Secondary Education; Simulation
IDENTIFIERS	Apple II; Apple II Plus; Courseware Evaluation; Microcomputer Software and Info for Teachers; PF Project; Software Evaluation; *Software Reviews; *Volcanoes

ABSTRACT

THE FOLLOWING IS THE FULL TEXT OF THIS DOCUMENT (Except for the Evaluation Summary Table): VERSION: 1.4E. PRODUCER: Earthware Computer Services, P.O. Box 30039, Eugene, OR 07403. EVALUATION COMPLETED: June 1982 by staff of NWREL and constituents of the Alaska Department of Education. COST: $49.50. ABILITY LEVEL: Secondary and College. SUBJECT: Earth Sciences/Geology: Volcanoes. MEDIUM OF TRANSFER: 5 1/4" flexible disk. REQUIRED HARDWARE: Apple II or Apple II Plus, one disk drive, a color monitor or TV with RF modulator (a B & W will work). REQUIRED SOFTWARE: Applesoft, DOS 3.3. INSTRUCTIONAL PURPOSE: Standard instruction and enrichment. INSTRUCTIONAL TECHNIQUES: Game/simulation. DOCUMENTATION AVAILABLE: In computer program: program operating instructions, student's instructions. In supplementary materials: instructional objectives, sample program output, program operation instructions, pretest, posttest, teacher's information, resource/reference information, student's instructions, student worksheets, follow-up activities, glossary of terms. INSTRUCTIONAL OBJECTIVES: The program teaches volcanic terminology, the types of volcanoes, methods and results of remote sensing surveys, interpretation of bar graphs, keeping careful records and interpretation of scientific observations. INSTRUCTIONAL PREREQUISITES: Knowledge of the terms included in the documentation; knowledge of the various methods of surveying a volcanic region. This information is included in the documentation. CONTENT AND STRUCTURE: Package consists of two diskettes, two Blue Books (user reference manuals), two sets of reproducible maps and one teacher's manual. Two to three players are assigned areas on a map by the computer. Each player is assigned a research fund and skill level. Players must conduct simulated scientific surveys, such as infrared scans, of their areas and predict volcanic eruptions. Players keep records, dispense a research budget, plan research strategies and evaluate research results. ESTIMATED STUDENT TIME REQUIRED: Two to four hours. POTENTIAL USES: Volcanoes could be used to supplement a high school geology or earth science class which covers volcanism. The package could also be used with advanced upper elementary and junior high school students. The teacher would need to provide students with adequate background information and time in order to successfully complete the simulation game. MAJOR STRENGTHS: The background information and instructor's manual are very well written. A pretest, posttest and helpful bibliography are included. Volcanoes allows the student to simulate the role of a volcanologist and provides insight into the role of a research scientist and the science of volcanology. MAJOR WEAKNESSES: Students had some difficulty learning what to do to successfully predict an eruption. It would be helpful to have the computer print a list of current conditions, i.e., gases, recent seismic activity, location of hot spots, etc. This would give student more of an opportunity to get a "feel" for expected eruptions. EVALUATION SUMMARY: Evaluators indicate they would use or recommend use of this package with little or no change. (Author)

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Volcanoes

VERSION: 1.4E

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P.O. Box 30039
Eugene, OR 07403

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REQUIRED SOFTWARE: Applesoft, DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction and enrichment
INSTRUCTIONAL TECHNIQUES: Game/simulation

DOCUMENTATION AVAILABLE: In computer program: program operating instructions, student instructions. In supplementary materials: instructional objectives, sample program output, program operating instructions, pretest, posttest, teacher's information, resource/reference information, student's instructions, student worksheets, follow-up activities, glossary of terms.

INSTRUCTIONAL OBJECTIVES: The program teaches volcanic terminology, the types of volcanoes, methods and results of remote sensing surveys, interpretation of bar graphs, keeping careful records and interpretation of scientific observations.

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MAJOR WEAKNESSES: Students had some difficulty learning what to do to successfully predict an eruption. It would be helpful to have the computer print a list of current conditions, i.e., gases, recent seismic activity, location of hot spots, etc. This would give student more of an opportunity to get a "feel" for expected eruptions.

EVALUATION SUMMARY

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
	•				Difficulty level is appropriate to audience.
	•				Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
		•			Feedback is effectively employed.

SA	A	D	SD	NA	
•					Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
	•				User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
	•				Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicate they would use or recommend use of this package with little or no change.

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This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package.

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